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EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,105

Applicant(s)

EYLON ET AL.

Examiner

Haresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/16/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-55 are presented for examination.

Response to Arguments

2. Applicant's arguments filed 5/16/2005 have been fully considered but they are not persuasive. Therefore, rejection of claims 1-55 is maintained.

Applicant argues (1), "Duso et al. 5,892,915 (Hereinafter Duso-EMC-Corporation) does not disclose, teach, or suggest amended claimed limitations, files of the software application, the application files including executable code and streamlets including executable code". The examiner respectfully disagrees in response to applicant's arguments. The limitations, "files of the software application, the application files including executable code and streamlets including executable code", has been newly added, which is addressed by the new ground(s) of rejection (please refer to the below rejections of this office action). Therefore, the rejection is maintained.

Applicant argues (2), "limitations, a prediction model stored within an application library", are not well known in the art. The examiner respectfully disagrees in response to applicant's arguments. The cited reference, Duso et al. 5,892,915 (Hereinafter Duso-EMC-Corporation) clearly discloses use of prediction model (e.g., col., 18, lines 17 – 67) and use of an application library (e.g., figure 2, col., 7, lines 16 – 40). Prior art, for example, Campbell et al., 6,058,387 discloses a library that can be used to store model (e.g., paragraphs 5, 13, figure 1); Renaud et al., 5,958,051, discloses these limitation (e.g., usage of data structure for any files including Java and/or class files and/or applets and/or software components, paragraphs 12, 31); Matyas, Jr., 6,102,287, IBM, discloses these limitations (e.g., usage of structure containing plug-

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in content and/or HTML pages and/or MIME files, paragraphs 105-107); Desmond et al., 6,493,434, AT&T Corp., discloses these limitations (e.g., usage of structure containing plug-in and/or audio software and/or WAV file, paragraph 22); Perlman, 5,956,485, discloses these limitations (e.g., library containing video games software and/or code, paragraphs 18 and 25). The claim is open-ended (comprising), and page 24, lines 3-11 of the specification, clearly states, "While the invention has been particularly shown and described with reference to preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made without departing from the spirit and scope of the invention". Since, applicant's claims contain broadly claimed subject matter, it clearly reads upon the examiner's interpretation of the claimed subject matter. Therefore, the rejection is maintained.

Double Patenting

3. Applicant's submission of terminal disclosure to overcome the rejection with U.S. Patent No. 6,311,221 has been acknowledged.

Response to Amendment

4. The amendment filed 5/16/2005 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- a. addition of limitations, "said at least one streamlet as most appropriate to send to the client at a particular time based on an order in which code within the plurality of

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streamlets is predicted to be executed during execution of the software application on the client”, in claims 53-55.

Applicant is required to cancel the new matter, to avoid abandonment of this application, in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 53-55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art to use and/or make the invention.
6. The specification does not contain subject matter to implement limitations, “said at least one streamlet as most appropriate to send to the client at a particular time based on an order in which code within the plurality of streamlets is predicted to be executed during execution of the software application on the client”, as cited in claims 53-55. The specification clearly states, “the streamlets which are predicted to be needed at a given point during execution of the application are automatically sent to the client 14 so that they are generally present before the application attempts to access them. Both code and data, including external files used by the application, can be predictively streamed 20 in this manner and, the server is generally unconcerned with the actual content of the streamlets which are sent, page 14, lines 12 – 25.

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Examiner has reviewed the specification (OCR whole document) and could not find support for the additional limitations as claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 53-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 53-55 recite the limitations, “the client”. There is insufficient antecedent basis for this limitation in the claim. Since, multiple “clients” exist in the claim, it is not clear which “client” is referred by the limitations in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-9, 11, 12, 19-28, 30, 31, 38-43, 45, 46, 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duso et al. 5,892,915 (Hereinafter Duso-EMC-Corporation) in view of “Official Notice”, deVries et al., 6,219,671, Alta Vista Company (Hereinafter deVries-AltaVista) and Krishna et al., 6,012,071, FutureTense (Hereinafter Krishna-FutureTense).

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10. As per claims 1, 19, 22, 38, 39, Duso-EMC-Corporation clearly teaches a system / a method / a computer program product, for streaming a software application to a client (e.g., col., 33, lines 23 – 45, use of stream server and client over the network, figure 2) comprising:

an application library having application files (e.g., use of tape SILO and tape library, figure 2, col., 7, lines 16 - 40) a streaming manager configured to send the application files to a client as a plurality of streamlets (e.g., software module to send application files to clients by blocks of data / video clips, col., 8, lines 18 - 50), each streamlet corresponding to a particular data block in a respective application file (e.g., play position of the clip, figures 25-27, col., 33, col., 33, lines 8 -44),

a prediction model (e.g., concept of sending prefetch data, col., 18, lines 17 – 67) and a streaming prediction engine (e.g., use of a software module to prefetch data for streaming, figure 28) configured to identify at least one streamlet which is predicted to be most appropriate to send to a given client at a particular time in accordance with the prediction model (e.g., selecting block of data for prefetching to send to the client based upon need, col., 18, lines 17 – 67), dividing the application files into streamlets prior to initiation of a streaming session, (e.g., selecting block of data of the application files before sending to the client, col., 18, lines 17 – 67).

Duso-EMC-Corporation do not specifically mention about providing the model stored within the library.

“Official Notice” is taken that both the concept and advantages of providing the model stored within the library is well known and expected in the art. For example, Campbell et al., 6,058,387 discloses a library that can be used to store model (e.g., paragraphs 5, 13, figure 1);

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Renaud et al., 5,958,051, discloses these limitation (e.g., usage of data structure for any files including Java and/or class files and/or applets and/or software components, paragraphs 12, 31); Matyas, Jr., 6,102,287, IBM, discloses these limitations (e.g., usage of structure containing plug-in content and/or HTML pages and/or MIME files, paragraphs 105-107); Desmond et al., 6,493,434, AT&T Corp., discloses these limitations (e.g., usage of structure containing plug-in and/or audio software and/or WAV file, paragraph 22); Perlman, 5,956,485, discloses these limitations (e.g., library containing video games software and/or code, paragraphs 18 and 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the model stored within the library with the teachings of Duso-EMC-Corporation in order to facilitate the application library to retain the prediction model because the prediction model is implemented using a software module. The software module needs to be stored in a place to be retained for future use. It is well known in the art of using an application library to store the software modules including model software.

Duso-EMC-Corporation does not specifically mention about the software application having multiple files.

deVries-AltaVista discloses about the software application having multiple files (e.g., combined audio/video data using different files JPEG, MPEG etc., for transcoded software application using prediction mechanism, paragraph 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Duso-EMC-Corporation with the teachings of deVries-AltaVista in order to facilitate the software application having multiple files because the multiple files would help enhance the software application having different modularized pieces.

Duso-EMC-Corporation and AltaVista do not specifically mention about the application files and streams including executable code.

Krishna-FutureTense discloses the well-known concept of application files and streams including executable code (e.g., usage of applets and/or plug-in and/or HTML file, paragraphs 6 and 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Duso-EMC-Corporation and deVries-AltaVista with the teachings of Krishna-FutureTense in order to facilitate application files and streams including executable code because the executable code would help the receiving entity to utilize it. The well-known concept of streaming would stream executable code from one device to another device using the prediction mechanism.

11. As per claims 2, 3, 20, 21, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teaches the claimed limitations rejected under claims 1 and 19. Duso-EMC-Corporation also teaches that the streamlet size can be specified (e.g., figure 25, col., 32, lines 31 – 60) and different techniques can be implemented considering the stream's playback rate in relation to the storage size (e.g., col., 15, lines 43 – 63). However, Duso-EMC-Corporation do not specifically mention about each streamlet corresponds to a file data block having a size equal to a code page size used during file reads by an operating system expected to be present on a client system and the data block size being four kilobytes.

“Official Notice” is taken that both the concept and advantages of providing each streamlet corresponds to a file data block having a size equal to a code page size used during file

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reads by an operating system expected to be present on a client system and the data block size being four kilobytes is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include each streamlet corresponds to a file data block having a size equal to a code page size used during file reads by an operating system expected to be present on a client system and the data block size being four kilobytes with the teachings of Duso-EMC-Corporation in order to facilitate an operating system at the client system to receive file streams having data block size equal to a code page size of four kilobytes because the operating system at the client system would process the received data considering the page size for processing the received data. The file streams having four kilobytes size would be easier to handle by the operating system for processing. For example, Miller et al., 5,237,460, discloses the advantages of having the size of the data blocks selected to be efficient value depending upon the way the data is handled in the system, including the block size being selected to be a submultiple of the page size, which is typically 2K-bytes or 4K-bytes in the most commonly-used operating systems, col., 2, lines 26 – 59. The operating system at the client would avoid changing the size of the received file streams and would process the received file streams faster.

12. As per claims 4, 23, 40, 47, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations as rejected above. Duso-EMC-Corporation also teaches the following:

the application files are stored in the application library as preprocessed streamlets (e.g., col., 21, lines 31 - 64), each streamlet corresponding to a data block in a particular application

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file at a particular offset and having a predefined length (e.g., figures 25 – 27, col., 27, lines 25 – 47),

upon receipt at the server of a request for a particular streamlet from the client, retrieve the requested streamlet from the application library and transmit the streamlet to the client (col., 18, lines 17 – 67).

13. As per claims 5, 6, 24, 25, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations rejected under claims 1, 4 and 19, 23. Duso-EMC-Corporation also teaches data being compressed (e.g., col., 11, lines 2-48). However, Duso-EMC-Corporation do not specifically mention about a code page size used during files reads by an operating system expected to be present to a client system.

“Official Notice” is taken that both the concept and advantages of providing a code page size used during files reads by an operating system expected to be present to a client system is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a code page size used during files reads by an operating system expected to be present to a client system with the teachings of Duso-EMC-Corporation in order to facilitate an operating system at the client system to receive file streams having data block size equal to a code page size for processing because the operating system at the client system would process the received data considering the page size for processing the received data. The file streams having predetermined size would be easier to handle by the operating system for processing. For example, Miller et al., 5,237,460, discloses the advantages of having the size of the data blocks

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selected to be efficient value depending upon the way the data is handled in the system, including the block size being selected to be a submultiple of the page size, which is typically 2K-bytes or 4K-bytes in the most commonly-used operating systems, col., 2, lines 26 – 59. The operating system at the client would process the received file streams faster with the known predefined data block size.

14. As per claims 7, 26, 41, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations as rejected above. Duso-EMC-Corporation also teaches the following:

the streaming manager is configured to send the client upon a first initiation of the streaming application, a file structure specification of the application files (e.g., figures 25 – 27, col., 27, lines 25 – 47).

15. As per claims 8, 9, 27, 28, 42, 43, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations rejected under claims 1, 7, 19, 26, 38, 41. Duso-EMC-Corporation also teaches the application library has a startup block comprising the file structure specification and set of streamlets stored therein (e.g., figures 25 – 27, col., 27, lines 25 – 47). However, Duso-EMC-Corporation do not specifically mention about a set of streamlets comprising at least those streamlets containing the portions of the application required to enable execution of the application to be initiated.

“Official Notice” is taken that both the concept and advantages of providing a set of streamlets comprising at least those streamlets containing the portions of the application required to enable execution of the application to be initiated is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a set of streamlets comprising at least those streamlets containing the portions of the application required to enable execution of the application to be initiated with the teachings of Duso-EMC-Corporation in order to facilitate the client system to receive data streams of the application and to start the execution of the application because the client system would process the received data considering that the received data would be used for starting the execution of the application. As per the information received by the client system by the stream blocks, the client would start the execution using the stream blocks of the application. The stream blocks being for the execution of the application would help the client system to execute the application after the stream blocks are received.

16. As per claims 11-12, 30-31, 45-46, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations rejected under claims 1, 19, 38. Duso-EMC-Corporation also teaches a differential prediction model associated with the client and the prediction engine configured to make streamlet predictions for the client in accordance with the default prediction model and the respective differential prediction model (e.g., col., 21, lines 4 - 30).

However, Duso-EMC-Corporation do not specifically mention about upon receipt of application usage tracking information from the client and to update at least one of the differential prediction model for the client and the prediction model.

“Official Notice” is taken that both the concept and advantages of upon receipt of application usage tracking information from the client and to update at least one of the differential prediction model for the client and the prediction model is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include upon receipt of application usage tracking information from the client and to update at least one of the differential prediction model for the client and the prediction model with the teachings of Duso-EMC-Corporation in order to facilitate the client system to receive provide environment support software data streams before the application data streams are used for initiation and to modify the prefetch/predict information as per the application data streams usage because the client system would first need data streams of the installing streaming environment support software. Then, the client system would need the application data streams for execution. Using the installing streaming environment support software, the client system would execute the data streams received for the application to be executed. The client system would provide the application usage status feedback to the block streams sending software to inform the prediction model for prefetch/predict next information needed by the client.

17. As per claims 53-55, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations rejected under claims 1, 19, 38.

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deVries-AltaVista also discloses based on an order in which code within the plurality of streamlets (e.g., figures 5, 8-10) is predicted (e.g., prediction of stream information, paragraph 32) to be executed during execution of the software application on the client (e.g., information used for execution at client, paragraphs 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense in order to facilitate based on an order in which code within the plurality of streamlets is predicted to be executed during execution of the software application on the client because the code contained in the order of streams would provide sequence of information that would be executed at the client system. The predicted information would be utilized during the execution of the software at the client.

18. Claims 10, 29, 44, are rejected under 35 U.S.C. 103(a) as being unpatentable over Duso-EMC-Corporation, deVries-AltaVista, Krishna-FutureTense and "Official Notice" in view of Chen et. al. 6,412,004 (Hereinafter Chen).

19. As per claims 10, 29 and 44, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations rejected under claims 1, 19, 38. However, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense do not teach installation of streaming environment support software.

Chen teaches the following:

the streaming manager is further configured to install streaming environment support software on the client prior to initiating an application streaming processes (e.g., The metaserver

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can manage both live and on-demand video streams. If a client computer wishes to watch a live event or an on-demand content, it should be prepared to wait until the event actually starts or until the tape with the requested multimedia content is installed into the multimedia server, col. 5, line 4 – col. 6, line 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense with the teachings of Chen in order to facilitate streaming environment for the streaming application at the client device before the application is executed because the client system would be able to utilize the server sent streaming environment instantly whenever it is necessary, including executing the application block streams.

20. Claims 13-18, 32-37, 47-52, are rejected under 35 U.S.C. 103(a) as being unpatentable over Duso-EMC-Corporation, deVries-AltaVista, Krishna-FutureTense and “Official Notice” in further view of Stumm 5,768,528.

21. As per claims 13-18, 32-37, 47-52, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense teach the claimed limitations rejected under claims 1, 19, 38. However, Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense do not teach usage of data map.

Stumm teaches the following.

an application status repository comprising a data map for each active client and the data map generally indicating the streamlets which are present at the respective client (e.g., The database server maintains a schedule of events file adapted to contain information relating to

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predetermined downloading schedules to the subscribers of the database server. The schedule of events file or the relevant portions of it are then transmitted to individual subscribers so that requests for information can be launched from the subscribers terminals at a predetermined time in accordance with the schedule of event file, abstract, receiving from each subscriber an information request in accordance with the schedule of events file and a list of existing files in the subscriber's database including the file names, file sizes and corresponding file identification code, col. 1 line 12 – col. 2, line 45),

determine if the data map indicates that the client already has the requested streamlet and request an updated data map from the client and replace the data map with a returned updated map (e.g., figure 11, col. 1 line 12 – col. 2, line 45);

retrieve the requested streamlet from the application library and update the data map upon a successful transmission of the requested streamlet to the client (e.g., figure 11, col., 2, lines 41 – 66),

replace the data map in the application status repository for the client with the data map received from the client and compare the data map in the application status repository for the client with the data map received from the client and log mismatches (e.g., figure 11, col. 8 lines 5 – 48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Duso-EMC-Corporation, deVries-AltaVista and Krishna-FutureTense with the teachings of Stumm to keep track of previously server sent data at the client. The use of data map would help client application of what the data has already present at the client, which no longer is necessary to be requested from the server. By using the same data

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at the client, which was downloaded previously, it would save time and network bandwidth during downloading of data at the client.

Conclusion

22. The prior art made of record (forms PTO-892 and applicant provided IDS cited arts) and not relied upon is considered pertinent to applicant's disclosure.

Guck, 5,911,776, Unisys Corporation, also teaches the concept of streaming of multimedia data using block of streams for predictive information.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Haresh Patel

August 5, 2005



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100